

# Sea Grant

## Efforts on Coastal and Community Resiliency

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# Sea Grant's Mission



Image: Virginia Sea Grant



Image: NOAA



Image: Terry Johnson, Alaska Sea Grant

“Enhance the practical use and conservation of coastal, marine, and Great Lakes resources to create a sustainable economy and environment”

# What is Sea Grant?



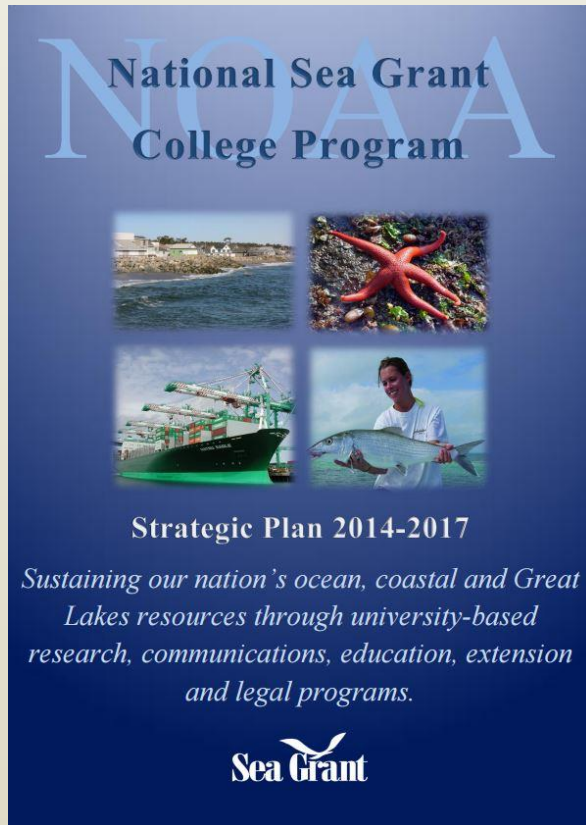
- Federal-state partnership in coastal states
- Engages more than 200 educational institutions
- Engages over 300 industry partners and 1000 local, state, and regional partners

# Sea Grant's Niche



- Relevant research for stakeholder needs
- Outreach & extension puts research to work
- Education trains the current & future workforce
- Well respected and consistent presence in communities

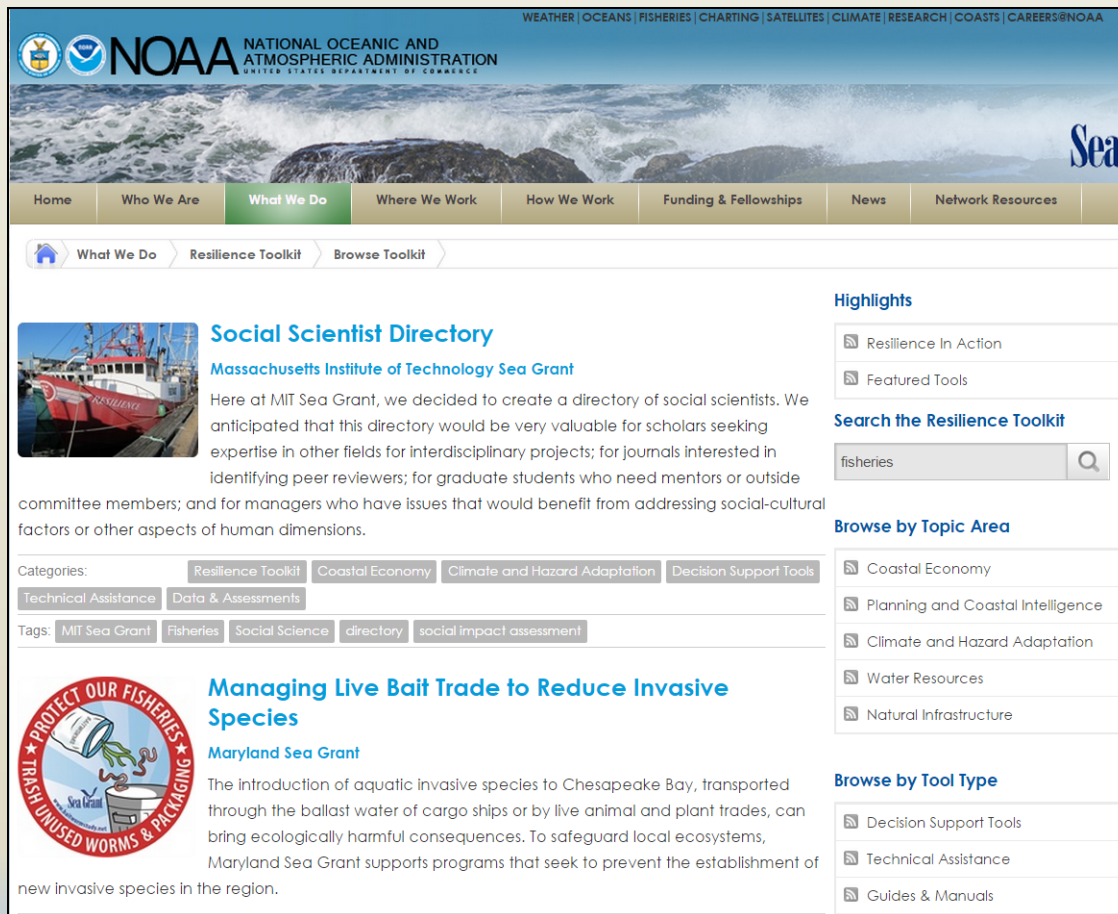
# 2014-2017 Strategic Plan



## National Focus Areas (2014-2017)

- Resilient Communities and Economies
- Sustainable Fisheries & Aquaculture
- Healthy Coastal Ecosystems
- Environmental Literacy & Workforce Development

# Sea Grant Resilience Toolkit



WEATHER | OCEANS | FISHERIES | CHARTING | SATELLITES | CLIMATE | RESEARCH | COASTS | CAREERS@NOAA

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
UNITED STATES DEPARTMENT OF COMMERCE

Home Who We Are What We Do Where We Work How We Work Funding & Fellowships News Network Resources

What We Do Resilience Toolkit Browse Toolkit

### Social Scientist Directory

Massachusetts Institute of Technology Sea Grant

Here at MIT Sea Grant, we decided to create a directory of social scientists. We anticipated that this directory would be very valuable for scholars seeking expertise in other fields for interdisciplinary projects; for journals interested in identifying peer reviewers; for graduate students who need mentors or outside committee members; and for managers who have issues that would benefit from addressing social-cultural factors or other aspects of human dimensions.

Categories: Resilience Toolkit Coastal Economy Climate and Hazard Adaptation Decision Support Tools  
Technical Assistance Data & Assessments

Tags: MIT Sea Grant Fisheries Social Science directory social impact assessment

### Managing Live Bait Trade to Reduce Invasive Species

Maryland Sea Grant

The introduction of aquatic invasive species to Chesapeake Bay, transported through the ballast water of cargo ships or by live animal and plant trades, can bring ecologically harmful consequences. To safeguard local ecosystems, Maryland Sea Grant supports programs that seek to prevent the establishment of new invasive species in the region.

#### Highlights

- Resilience In Action
- Featured Tools

#### Search the Resilience Toolkit

fisheries

#### Browse by Topic Area

- Coastal Economy
- Planning and Coastal Intelligence
- Climate and Hazard Adaptation
- Water Resources
- Natural Infrastructure

#### Browse by Tool Type

- Decision Support Tools
- Technical Assistance
- Guides & Manuals

- Tools
- Examples
- Special topics

<http://seagrants.noaa.gov/WhatWeDo/ResilienceToolkit.aspx>



# Assessing Vulnerability and Resilience

## Vulnerability, Consequences, Adaptation Planning Scenarios (VCAPS)

- Help communities become more resilient to weather and climate change
- Engaging dialogue
- Summarizing local knowledge and experience
- Identifying gaps in data, knowledge, or understanding
- Thinking strategically about taking action in the short and long-term

**Successfully used with fishing communities and partners in many Sea Grant States**



Image: South Carolina Sea Grant

# Climate Change Research

- Multi-year project on rising ocean temperatures and flounder fishery
- Results to inform future management efforts
- Serve as a model for climate-related impacts

**Virginia Sea Grant & partners**

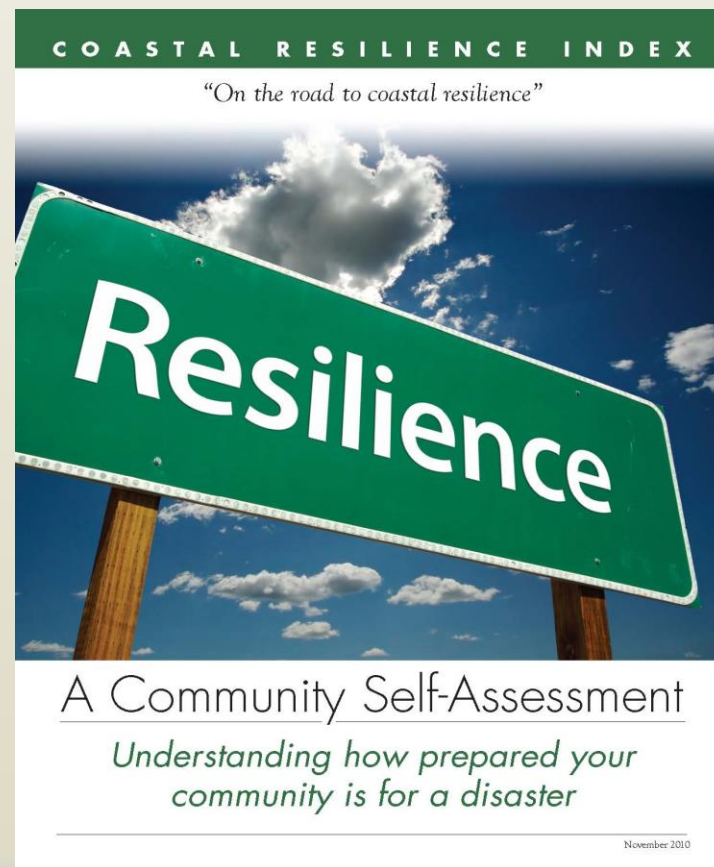


Image: Summer flounder. ©Janet Krenn/VASG



# Coastal Community Resilience Index

- Self-assessment tool helps communities identify vulnerabilities, strengths, impacts of natural disasters.
- 47 communities across the Gulf of Mexico and 74 local facilitators trained
- New sector-specific assessments are being launched including the Fisheries Resilience Index



# Community Supported Fisheries, Rebranding, and More

## Louisiana Sea Grant

- Vermillion Bay Sweet Shrimp rebranding

## New Hampshire Sea Grant

- CSF since 2009

## Virginia Sea Grant

- Value-added workshops

## Multiple Partners & Sea Grant Programs



Image: Louisiana Sea Grant

# Aquaculture Success Story

- The integrated aquaculture of steelhead trout, mussels and sugar kelp has been accepted by the EPA and state regulatory agencies
- Production levels increased in 2013, creating additional income for regional fishermen while improving water quality

## NH Sea Grant & Partners: Multi-trophic aquaculture



Image: New Hampshire Sea Grant

# Aquaculture Success Story

- Diversifies the clam industry
- Supported research and extension on native species for aquaculture
- Sunrise venus clam
- Market analysis shows promise (90% rated as excellent or very good)

## FL Sea Grant & Partners: New Species Development



Image: UF IFAS, Tyler Jones



# Workforce Development

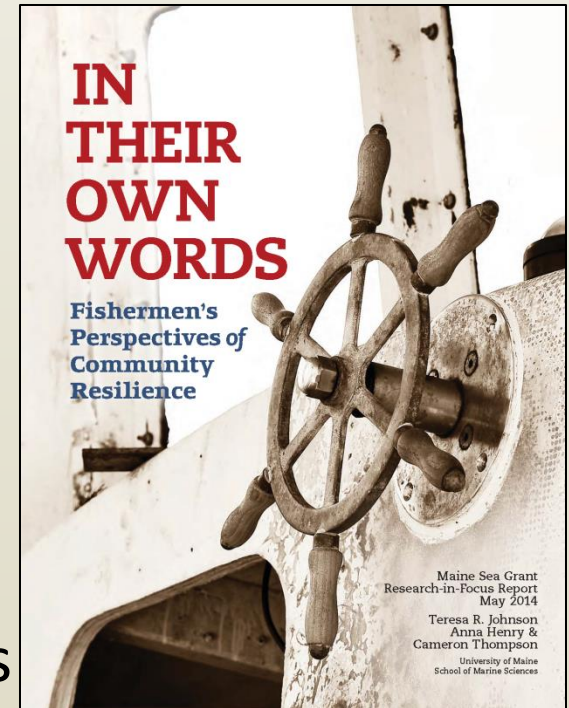
- Aquaculture extension and training
- Hazard Analysis Critical Control Point (HACCP) and safety-at-sea training
- Sustainability training
- Learning new gear and new methods
- Knowledge transfer



Photo: Michael Fincham

# Fishing Community Needs

- Maintaining operations on vessels and working waterfronts
- Diversification of species and fishing techniques (e.g., doing more with less effort, by-catch reduction)
- Training and transitioning to new methods (e.g., aquaculture)
- Facilitation of research to operations





# Fishing Community Needs

- Restoration and monitoring of ecosystem health and diversity
- Evaluation of federal, state, and local management and regulations
- Preservation and enhancement of the working waterfront (and waterfront access)
- Communicating the importance of fishing heritage and tradition



Image: Washington Sea Grant

# What can Sea Grant Offer?

- Applied research that addresses stakeholder needs (e.g., new techniques)
- Translation and communication of science to practice
- Boots on the ground in communities
- Honest brokers of information
- Workforce development and training



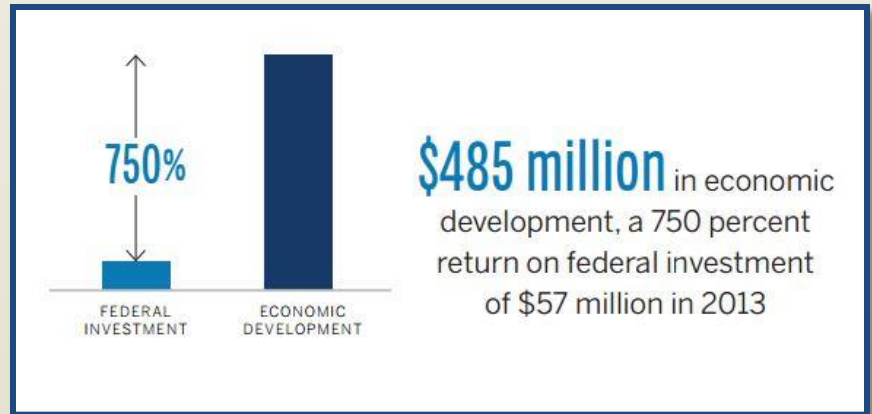
Photo: Mike Sullivan, Skidaway Institute of Oceanography

# Questions?

# Back-up Slides

# Sea Grant Return on investment

- There is at least one dollar of state and local matching funds for every two federal dollars spent.



- The work Sea Grant does earns a 750 percent return on federal investment creating jobs, and ensuring Americans can live near, vacation at, and earn a living from our oceans and Great Lakes for generations to come.

# Sea Grant Performance Measures

**For a one year period:**

- **6,500** Businesses created or sustained
- **17,500** Jobs created or sustained
- **\$450M** Economic (market and non-market) impacts derived from Sea Grant activities
- Sea Grant's ability to **leverage federal funding**, generate powerful **partnerships** and provide **technical assistance** to industry, enabled the Program to contribute this estimated benefit to the nation.